



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,639	06/30/2000	Yongquin Chen	1-18	9272

7590 06/17/2003
Docket Administrator Room 3C 512
Lucent Technologies Inc
600 Mountain Avenue
P.O. Box 636
Murray Hill, NJ 07974-0636

EXAMINER

JACKSON, CORNELIUS H

ART UNIT PAPER NUMBER

2828

DATE MAILED: 06/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/608,639

Applicant(s)

CHEN ET AL.

Examiner

Cornelius H. Jackson

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.



PAUL IP
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 19 May 2003 has been entered.

Acknowledgment

2. Acknowledgment is made that applicant's Response, filed on 19 May 2003, has been entered. Claims 1-23 are now pending in the present application.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 10 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 10 is indefinite because it is unclear as to how the gain medium and the optical waveguide are coupled in the absence of coupling optics. Since the gain medium and the optical waveguide are optically coupled, there can be no absence of coupling optics because whatever optics used to couple the two elements will be the coupling optics. The definition provided by the specification is indefinite since

Art Unit: 2828

it fails to teach what "the absence of coupling optics" is/are, since the specification only states what is included as coupling optics and not what coupling optics are limited too.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Verdiell et al. (5870417). Verdiell et al. discloses a gain medium **12** comprising an active region **18**, a beam expanding region **18A**, a first surface having a reflective face **14** and a second surface having an antireflective layer **16**; an optical waveguide **20** located adjacent the gain medium **12** and a Bragg grating **22** integral with or coupled to the optical waveguide **20**, wherein the gain medium and the optical waveguide exhibit a coupling efficiency which even without the presence of coupling optics located between the gain medium and the optical waveguide is great enough that during laser operation, substantially all optical resonance that occurs is resonance of the cavity defined between the reflective face and the grating and the laser is configured to provide multimode output of at least two modes within the grating, **see col. 4, lines 23-54**.

Regarding claims 2-7, 9-14, 16, 18, 21 and 23, Verdiell et al. discloses the laser is operated by direct modulation, **see col. 5, lines 1-5**, and in the absence of a temperature-compensating apparatus, **see col. 7, lines 40-50**, the gain medium **12**

Art Unit: 2828

comprises a cavity less than 1 cm in length, **see col. 4, lines 16-22**, and the length of the system is less than 100 km, **see col. 5, line 65-col. 6, line 18**.

Regarding claims 8 and 15, Verdiell et al. discloses all the stated limitations, **see col. 6, lines 40-45**.

Regarding claims 17 and 19, Verdiell et al. discloses all the stated limitations, **see col. 7, lines 34-46, and col. 16, lines 28-48**.

Regarding claim 20, the method of forming a device is not germane to the issue of patentability of the device itself. Therefore, the rejection used against the device, stands for the method as well.

Regarding claim 22, Verdiell et al. discloses all the stated limitations, **see Fig. 1**.

Response to Arguments

7. Applicant's arguments filed 19 May 2003 have been fully considered but they are not persuasive.

Applicant argued that Verdiell et al. does not provide a multimode output and fails to teach the laser is configured to provide multimode output of a least two modes within the grating bandwidth". Examiner replies that Verdiell et al. does teach providing a multimode output, depending on the intended use/application of the device, **see col. 4, lines 23-28**. Also, Verdiell et al. teach multimode operations regardless of the suppression of mode hopping, **see col. 5, lines 39-40 and claim 1** and that even with temperature control mode hopping occur, **see col. 16, lines 18-22**.

Conclusion

8. This is a continuation of applicant's earlier Application No. 09/608639. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cornelius H. Jackson whose telephone number is (703) 306-5981. The examiner can normally be reached on 8:00 - 5:00, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7722 for regular communications and (703)308-7721 for After Final communications.

Art Unit: 2828

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.



chj
June 10, 2003



PAUL IP
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800